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Killingbeck

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(54) **METHODS OF PROMOTING SLEEP SYSTEMS**

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(52) **U.S. Cl.** **73/865.9**; 73/9; 5/694

(58) **Field of Classification Search** 73/865.9, 73/9, 172; 5/694

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,424,710 A * 1/1984 Von Nortwick, II 73/172
5,970,789 A * 10/1999 Meyer et al. 73/172
6,721,980 B1 * 4/2004 Price et al. 73/172 X

FOREIGN PATENT DOCUMENTS

DE 3800080 A1 * 7/1989 5/716
JP 02232007 A * 9/1990
JP 04325116 A * 11/1992
JP 06022833 A * 2/1994
WO 9510762 A1 * 4/1995

* cited by examiner

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(57) **ABSTRACT**

A method for selecting a sleep system comprises positioning a person on a mattress in a lying position. One of the person's arms extends generally perpendicular to the person's torso. A first pillow is positioned underneath the person's head, and a force is applied to the person's arm in a direction generally toward the person's feet. An amount of resistive force supplied by the person's arm is estimated and used to determine whether the proper combination of mattress and pillow is achieved.

9 Claims, 5 Drawing Sheets

